

Serial No.: 09/726,220
Inventor/s: FOULADI et al.
Title: GRAPHICS PROCESSING SYSTEM WITH
ENHANCED MEMORY CONTROLLER

C#/M#: 723-974
Atty: Michael J. Shea
Date: May. 22, 03

☒ **Information Disclosure Statement
w/ PTO-1449 and attached References**

\$ Fee (Check) - Pre-Bill
\$ Fee (Check) - Non Pre-Bill
\$0.00 Total Fee Enclosed

Other:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

FOULADI et al.

Serial No. 09/726,220

Filed: November 28, 2000

For: GRAPHICS PROCESSING SYSTEM WITH ENHANCED
MEMORY CONTROLLER



Atty. Ref.: 723-974

Group: 2671

Examiner:

* * * * *

COPY

May 22, 2003

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Under 37 C.F.R. §§ 1.56 and 1.97, the applicant directs the attention of the Patent and Trademark Office to the items listed on the attached forms PTO-1449. These items were cited in copending commonly-assigned related patent applications as indicated in the appendix and not yet of record in this case.¹ The Examiner is requested to cite and consider these items in this case.

Applicant is attaching copies of all items other than U.S. patents. The U.S. patents are readily available to the Examiner; applicant will submit a copy upon request.

Should the examiner need anything further to consider these items, please contact the undersigned at the telephone number listed below.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

In the event a first Office Action has already been mailed, please treat this paper as a submission under 37 C.F.R. § 1.97(c) and charge Deposit Account No. 14-1140 for the fee required by 37 C.F.R. § 1.17(p). The U.S. Patent and Trademark Office is authorized to charge any fee which was asserted to have been filed or which should have been filed and to credit any overpayment, to that same Deposit Account No. 14-1140.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: Michael J. Shea
Michael J. Shea
Reg. No. 34,725

MJS::bld
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

¹ The identification of the co-pending U.S. Patent Applications in the appendix is not to be construed as a waiver of secrecy as to those applications now or upon issuance of this application as a patent.

APPENDIX

The items cited on the attached form PTO-1449 is of record in the co-pending related commonly-assigned patent applications as indicated below:

I. Application No. 09/465,754 filed December 17, 1999 (atty. dkt. no. 723-799)
entitled "Vertex Cache For 3D Computer Graphics":

WO/93/04429	PCT
4,491,836	Collmeyer et al.
4,653,012	Duffy et al.
4,695,943	Keeley et al.
4,710,876	Cline et al.
4,768,148	Keeley et al.
4,785,395	Keeley
4,790,025	Inoue et al.
4,812,988	Duthuit et al.
4,829,452	Kang et al.
4,833,601	Barlow et al.
4,965,751	Thayer et al.
4,975,977	Kurosu et al.
5,056,044	Frederickson et al.
5,086,495	Gray et al.
5,163,126	Einkauf et al.
5,179,638	Dawson et al.
5,353,424	Partovi et al.
5,448,689	Matsuo et al.
5,657,045	Katsura et al.
5,657,443	Krech, Jr.
5,659,673	Nonoshita
5,726,947	Yamazaki et al.
5,740,406	Rosenthal et al.
5,745,125	Deering et al.
5,748,986	Butterfield et al.
5,751,930	Katsura et al.
5,754,191	Mills et al.
5,801,720	Norrod et al.
5,821,940	Morgan et al.

5,821,940	Morgan et al
5,822,516	Krech, Jr.
5,838,334	Dye
5,886,701	Chauvin et al.
5,887,155	Laidig
5,940,089	Dilliplane
5,949,421	Ogletree et al.
5,995,120	Dye
6,088,701	Whaley et al.
6,226,713 B1	Mehrotra
6,292,194 B1	Powll, III
6,408,362 B1	Arimilli et al.
6,426,747	Hoppe et al.
6,459,429	Deering

White paper, Huddy, Richard, "The Efficient Use of Vertex Buffers," (11/01/2000)

White paper, Spitzer, John, et al., "Using GL_NV_array_range and GL_NV_Fence on GeForce Products and Beyond" (08/01/2000)

White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)

Hook, Brian, "An Incomplete Guide to Programming DirectDraw and Direct3D Immediate Mode (Release 0.46)," printed from web site: www.wksoftware.com, 42 pages

Thompson, Tom, "Must-See 3-D Engines," BYTE MAGAZINE, printed from web site www.byte.com, 10 pages (June 1996)

Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site msdn.microsoft.com, 8 pages (March 97)

"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site support.microsoft.com, 3 pages (last reviewed 12/15/2000)

INFO: Rendering a Triangle Using an Execute Buffer," printed from web site support.microsoft.com, 6 pages (last reviewed 10/20/2000)

U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method

Datasheet, SGS-Thomson Microelectronics, nVIDIA™, RIVA 128™ 128-Bit 3D Multimedia Accelerator (10/1997)

Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages

Hoppe, Hugues, "Optimization of Mesh Locality for Transparent Vertex Caching," PROCEEDINGS OF SIGGRAPH, pages 269-276 (August 8-13, 1999)

II. Application No. 09/726,223 filed November 28, 2000 (atty. dkt. no. 723-751) entitled "Z Value Clamping In Near-Z Range To Maximize Precision Of Visually Important Z Components And To Avoid Near-Z Clipping In A Graphics Rendering System":

4,888,712	BARKANS et al.
4,907,174	PRIEM
5,819,017	Akeley et al.
5,856,829	GRAY, III et al.
5,923,332	IZAWA
5,926,182	MENON et al.
5,982,376	ABE et al.
5,986,659	GALLERY et al.
6,046,746	DEERING
6,052,129	FOWLER et al.
6,144,387	LIU et al.
6,157,387	KOTANI
6,285,779	Lapidous et al.

III. Application No. 09/722,419 filed November 28, 2000 (atty. dkt. no. 723-958) entitled "Graphics Pipeline Token Synchronization":

4,989,138	Radochonski
5,345,541	Kelley et al
5,467,459	Alexander et al.
5,487,146	Guttag et al.
5,768,629	Wise et al.
5,828,907	Wise et al.
5,835,792	Wise et al.
5,872,902	Kuchkuda et al.
5,982,390	Stoneking et al.
6,046,752	Kirkland et al.
6,252,610	Hussain
6,476,808	Kuo et al.

IV. Application No. 09/722,382 filed November 28, 2000 (atty. dkt. no. 723-961) entitled "Method And Apparatus For Direct and Indirect Texture Processing In A Graphics System":

4,692,880	MERZ et al.
-----------	-------------

4,935,879	UEDA
5,003,496	HUNT, Jr. et al.
5,422,997	NAGASHIMA
5,469,535	JARVIS et al.
5,495,563	WINSER
5,548,709	HANNAH et al.
5,582,451	COX et al.
5,586,234	SAKURABA et al.
5,664,162	DYE
5,696,892	REDMANN et al.
5,706,481	HANNAH et al.
5,726,689	NEGISHI et al.
5,734,386	COSMAN
5,745,118	ALCORN et al.
5,751,292	EMMOT
5,764,237	KANEKO
5,777,623	SMALL
5,831,625	RICH et al.
5,831,640	WANG et al.
5,835,096	BALDWIN
5,861,888	DEMPSEY
5,877,770	HANAOKA
5,892,517	RICH
5,926,647	ADAMS et al.
5,945,997	ZHAO et al.
5,963,220	LEE et al.
5,987,567	RIVARD et al.
5,999,198	HORAN et al.
6,002,407	FADDEN
6,011,565	KUO et al.
6,040,844	YAMAGUCHI et al.
6,046,747	SAUNDERS et al.
6,052,126	SAKURABA et al.
6,057,849	HAUBNER et al.
6,057,851	LUKEN et al.
6,057,861	LEE et al.
6,353,438	VAN HOOK

Whitepapers: "Texture Addressing," Sim Dietrich, January 6, 2000, www.nvidia.com

V. Application No. 09/722,367 filed November 28, 2000 (att. dkt. no. 723-968) entitled "Recirculating Shade Tree Blender For A Graphics System":

4,586,038	Sims et al.
5,278,948	Luken, Jr.
5,561,752	Jevans
5,678,037	Osugi et al.
5,867,166	Myhrvold et al.
5,949,428	Toelle et al.
5,999,189	Kajiya et al.
6,016,151	Lin
6,043,821	Sprague et al.
6,236,413	Gossett et al.
6,331,856	Van Hook et al.

RenderMan Interface Version 3.2 (7/2000)

The RenderMan Interface Version 3.1," (September 1989)

"Renderman Artist Tools, PhotoRealistic RenderMan Tutorial," Pixar (01/1996)

Web site materials, "Renderman Artist Tools, PhotoRealistic RenderMan 3.8 User's Manual," Pixar,

NVIDIA.com, technical presentation, "AGDC Per-Pixel Shading" (11/15/2000)

NVIDIA.com, technical presentation, "Introduction to DX8 Pixel Shaders (11/10/2000)

NVIDIA.com, technical presentation, "Advanced Pixel Shader Details" (11/10/2000)

"Developer's Lair, Multitexturing with the ATI Rage Pro," (7 pages) from ati.com web site (2000)

VI. Application No. 09/726,218 filed November 28, 2000 (att. dkt. no. 723-960) entitled "Method And Apparatus For Efficient Generation Of Texture Coordinate Displacements For Implementing Emboss-Style Bump Mapping In A Graphics Rendering System":

5,900,881	IKEDO
5,880,736	PEERCY et al.
5,808,619	CHOI et al.
4,808,988	BURKE et al.

6,014,144 NELSON et al.
5,224,208 MILLER, JR. et al.
6,078,334 HANAOKA et al.
5,561,746 MURATA et al.
5,659,671 TANNENBAUM et al.
4,974,177 NISHIGUCHI
6,081,274 SHIRAISHI
6,031,542 WITTIG
5,621,867 MURATA et al.

GDC 2000: Advanced OpenGL Game Development, "A Practical and Robust Bump-mapping Technique for Today's GPUs," by Mark Kilgard, July 5, 2000, www.nvidia.com

Technical Presentations: "Texture Space Bump Mapping," Sim Dietrich, November 10, 2000, www.nvidia.com

VII. Application No. 09/722,381 filed November 28, 2000 (atty. dkt. no. 723-962) entitled "Method And Apparatus For Environment-Mapped Bump-Mapping In A Graphics System":

0 637 813 A2 EUROPEAN
4,615,013 YAN et al.
5,544,292 WINSER
5,563,989 BILLYARD
5,809,219 PEARCE et al.
5,870,102 TAROLLI et al.
5,923,334 LUKEN
5,956,043 JENSEN
6,049,337 VAN OVERVELD
6,052,127 VASWANI et al.
6,078,333 WITTIG et al.
6,191,794 PRIEM et al.

VIII. Application No. 09/726,216 filed November 28, 2000 (atty. dkt. no. 723-967) entitled "Achromatic Lighting in a Graphics System and Method":

4,275,413 Sakamoto et al.
5,016,183 Shyong
5,097,427 Lathrop et al.

5,361,386	Watkins et al.
5,467,438	Nishio et al.
5,473,736	Young
5,495,563	Winser, Paul A.
5,504,499	Horie et al.
5,557,712	Guay
5,566,285	Okada
5,649,082	Burns
5,687,304	Kiss, Kenneth W.
5,740,343	Tarolli et al.
5,943,058	Nagy
5,956,042	Tucker et al.
6,023,261	Ugajin
6,232,981	Gossett, Carroll Philip
6,239,810	Van Hook et al.
6,417,858	Bosch et al.

White paper, Dietrich, Sim, "Cartoon Rendering and Advanced Texture Features of the GeForce 256 Texture Matrix, Projective Textures, Cube Maps, Texture Coordinate Generation and DOTPRODUCT3 Texture Blending" (12/16/1999)

IX. Application No. 09/726,226 filed November 28, 2000 (att. dkt. no. 723-964) entitled "Method And Apparatus For Anti-Aliasing In A Graphics System":

4,897,806	COOK et al.
5,239,624	COOK et al.
5,394,516	WINSER
5,600,763	GREENE et al.
5,651,104	COSMAN
5,764,228	BALDWIN
5,818,456	COSMAN et al.
5,859,645	LATHAM
5,877,771	DREBIN et al.
5,943,060	COSMAN et al.
5,949,428	TOELLE et al.
6,028,608	JENKINS
6,038,031	MURPHY

6,469,707 B1 Douglas Voorhies
6,496,187 B1 Michael Deering et al.

Whitepaper: Implementing Fog in Direct3D, January 3, 2000, www.nvidia.com
Akeley, Kurt, "Reality Engine Graphics", 1993, Silicon Graphics Computer
Systems, pp. 109-116.

X. Application No. 09/722,380 filed November 28, 2000 (atty. dkt. no. 723-957)
entitled "Graphics System With Embedded Frame Buffer Having Re-configurable
Pixel Formats":

5,018,076 JOHARY et al.
5,241,658 MASTERSON et al.
5,307,450 Grosssman
5,543,824 PRIEM et al.
5,559,954 SAKODA et al
5,650,955 PUAR et al.
5,657,478 RECKER et al.
5,694,143 Fielder et al.
5,703,806 PUAR et al.
5,742,788 PRIEM et al.
5,890,190 Rutman
5,914,729 LIPPINCOTT
5,933,154 HOWARD et al.
6,041,010 PUAR et al.
6,075,543 AKELEY
6,215,497 Leung
6,356,497 PUAR et al.
6,476,822 Burbank

Videum Conference Pro (PCI) Specification, product of Winnov (Winnov), published
7/21/1999

XI. Application No. 09/585,329 filed June 2, 2000 entitled "Variable Bit Field Color
Encoding" (atty. dkt. no. 723-749):

4,918,625 Yan
5,416,606 Katayama et al.

5,606,650	Kelley et al.
5,767,858	Kawase et al.
5,805,175	Priem
5,880,737	Griffen et al.
5,886,705	Lentz
5,894,300	Takizawa
5,914,725	Mcinnnis et al.
5,986,663	Wilde
6,005,583	Morrison
6,005,584	Kitamura et al.
6,016,150	Lengyel et al.
6,054,993	Devic et al.
6,339,428 B1	Fowler et al.

ZDNet Reviews, from PC Magazine, "Other Enhancements," January 15, 1999,
[wysiwyg://16/http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html](http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html)

ZDNet Reviews, from PC Magazine, "Screen Shot of Alpha-channel
Transparency," January 15, 1999,

[wysiwyg://16/http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html](http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html)

Alpha (transparency) Effects, Future Technology Research Index,
<http://www.futuretech.vuurwerk.nl/alpha.html>

Blythe, David, 5.6 Transparency Mapping and Trimming with Alpha,
<http://toolbox.sgi.com/TasteOfDT/d...penGL/advanced98/notes/node41.html>, June
11, 1998

10.2 Alpha Blending,

<http://www.sgi.com/software/opengl/advanced98/notes/node146.html>

10.3 Sorting, <http://www.sgi.com/software/opengl/advanced98/notes/node147.html>

10.4 Using the Alpha Function,

<http://www.sgi.com/software/opengl/advanced98/notes/node148.html>

Winner, Stephanie, et al., "Hardware Accelerated Rendering Of Antialiasing Using
A Modified A-buffer Algorithm," Computer Graphics Proceedings, Annual
Conference Series, 1997, pp 307-316

XII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-956)
entitled "Method And Apparatus For Dynamically Reconfiguring The Order Of
Hidden Surface Processing Based On Rendering Mode":

5,144,291	Nishizawa
5,268,995	Diefendorff et al.
6,052,125	Gardiner et al.

6,111,584 Murphy, Nicholas J.N.
6,144,365 Young et al.
6,166,748 Van Hook et al.
6,172,678 B1 Shiraishi
6,204,851 B1 Netschke et al.

XIII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-973)
entitled "Method And Apparatus For Providing Non-Photorealistic Cartoon
Outlining Within A Graphics System":

5,091,967 Ohsawa
5,666,439 Ishida et al
5,684,941 Dye
5,757,382 Lee
5,933,529 Kim
5,940,538 Spiegel et al
6,021,417 Massarksy
6,026,182 Lee et al
6,038,348 Carley
6,061,462 Tostevin et al
6,088,487 Kurashige

RenderMan Artist Tools, PhotoRealistic RenderMan 3.8 User's Manual, Pixar
(8/1998)

RenderMan Interface Version 3.2 (7/2000)

White paper, Dietrich, Sim, "Cartoon Rendering and Advanced Texture Features of
the GeForce 256 Texture Matrix, Projective Textures, Cube Maps, Texture
Coordinate Generation and DOTPRODUCT3 Texture Blending" (12/16/1999)

Peter J. Kovach, INSIDE DIRECT 3D, "Alpha Testing," ppp 289-291 (1999)

Web site information, CartoonReyes, REM Infografica,
<http://www.digimotion.co.uk/cartoonreyes.htm>

Raskar, Ramesh et al., "Image Precision Silhouette Edges," Symposium on
Interactive 3D Graphics 1999, Atlanta, 7 pages (April 26-29, 1999)

Schlechtweg, Stefan et al., "Rendering Line-Drawings with Limited Resources,
Proceedings of GRAPHICON '96, 6th International Conference and Exhibition on
Computer Graphics and Visualization in Russia, (St. Petersburg, July 1-5, 1996)
vol. 2, pp 131-137

Haeberli, Paul et al., "Texture Mapping as a Fundamental Drawing Primitive,"
Proceedings of the Fourth Eurographics Workshop on Rendering, 11 pages, Paris,
France (June 1993)

- Schlechtweg, Stefan et al., "Emphasising in Line-drawings," Norsk samarbeid innen grafisk databehandling: NORSIGD Info, medlemsblad for NORSIGD, Nr 1/95, pp. 9-10
- Markosian, Lee et al., "Real-Time Nonphotorealistic Rendering," Brown University site of the NSF Science and Technology Center for Computer Graphics and Scientific Visualization, Providence, RI, 5 pages (undated)
- Feth, Bill, "Non-Photorealistic Rendering," wif3@cornell.edu, CS490 – Bruce Land, 5 pages (Spring 1998)
- Elber, Gershon, "Line Art Illustrations of Parametric and Implicit Forms," IEEE Transactions on Visualization and Computer Graphics, Vol. 4, No. 1, January-March 1998
- Zelevnik, Robert et al. "SKETCH: An Interface for Sketching 3D Scenes," Computer Graphics Proceedings, Annual Conference Series 1996, pp. 163-170
Computer Graphics World, December 1997
- Reynolds, Craig, "Stylized Depiction in Computer Graphics, Non-Photorealistic, Painterly and 'Toon Rendering," an annotated survey of online resources, 13 pages, last update May 30, 2000, <http://www.red.com/cwr/painterly.html>
- Render Man Artist Tools, "Using Arbitrary Output Variables in Photorealistic Renderman (With Applications), PhotoRealistic Renderman Application Note #24, 8 pages, June 1998,
<http://www.pixar.com/products/renderman/toolkit/Toolkit/AppNotes/appnote.24.html>
- Decaudin, Philippe, "Cartoon-Looking Rendering of 3D Scenes," Syntim Project Inria, 6 pages , <http://www-syntim.inria.fr/syntim/recherche/decaudin/cartoon-eng.html>
- Hachigian, Jennifer, "Super Cel Shader 1.00 Tips and Tricks," 2 pages, http://members.xoom.com/_XMCM.jarvia/3D/celshade.html
- Digimation Inc., "The Incredible Comicshop," info sheet, 2 pages, http://www.digimation.com/asp/product/asp?product_id=33
- Softimage/3D Full Support, "Toon Assistant," 1998 Avid Technology, Inc., 1 page, http://www.softimage.com/3dsupport/techn...uments/3.8/features3.8/rel_notes.56.html
- Cambridge Animo – Scene III, info sheet, Cambridge Animation Systems, 2 pages, <http://www.cam-ani.co.uk/casweb/products/software/SceneIII.htm>
- Mulligan, Vikram, "Toon, " info sheet, 2 pages, <http://digitalcarversguild.com/products/toon/toon.html>
- Toony Shaders, "Dang I'm tired of photorealism," 4 pages, <http://www.visi.com/~mcdonald/toony.html>
- "Cartoon Shading, Using Shading Mapping," 1 page, <http://www.goat.com/alias/shaders.html#toonshad>
- web site information, CartoonReyes, <http://www.zentertainment.com/zentropy/review/cartoonreyes.html>

VIDI Presenter 3D Repository, "Shaders." 2 pages,
<http://www.webnation.com/vidirep/panels/renderman/shaders/toon.phtml>

XIV. Application No. 09/726,225 filed November 28, 2000 (atty. dkt. no. 723-954)
entitled "Method And Apparatus For Providing Improved Fog Effects In A
Graphics System":

4,463,380	HOOKS, Jr.
5,268,996	STEINER et al.
5,357,579	BUCHNER et al.
5,363,475	BAKER et al.
5,412,796	OLIVE
5,415,549	LOGG
5,432,895	MYERS
5,535,374	OLIVE
5,573,402	GRAY
5,616,031	LOGG
5,724,561	TAROLLI et al.
5,977,984	OMORI
5,990,903	DONOVAN
6,005,582	GABRIEL et al.
6,064,392	ROHNER
6,268,861 B1	Sanz-Pastor et al.
6,342,892 B1	Van Hook et al.
6,437,781 B1	Tucker et al.

XV. Application No. 09/722,664 filed November 28, 2000 (atty. dkt. no. 723-969)
entitled "Controller Interface For A Graphics System":

5,593,350	BOUTON et al.
5,607,157	NAGASHIMA
5,628,686	SVANCAREK et al.
5,638,535	Rosenthal et al.
5,714,981	SCOTT-JACKSON et al.
5,791,994	HIRANO et al.
5,892,974	KOIZUMI et al.
5,958,020	EVOY et al.
6,007,428	NISHIUMI et al.
6,022,274	TAKEDA et al.

6,070,204 Poisner, David
6,078,311 Pelkey, Michael H.
6,155,926 MIYAMOTO et al.
6,200,253 NISHIUMI et al.
6,264,558 NISHIUMI et al.

XVI. Application No. 09/726,221 filed November 28, 2000 (atty. dkt. no. 723-955)
entitled "Method And Apparatus For Texture Tiling In A Graphics System":

4,974,176 BUCHNER et al.
5,490,240 FORAN et al.
5,760,783 MIGDAL et al.
5,828,382 WILDE
5,831,624 TAROLLI et al.
5,844,576 WILDE et al.
6,002,410 BATTLE
6,049,338 ANDERSON et al.
6,104,415 GOSSETT
6,466,223 B1 Dorbie et al.

XVII. Application No. 09/722,378 filed November 28, 2000 (atty. dkt. no. 723-965)
entitled "Z-Texturing":

4,855,934 Robinson
5,751,291 Olsen et al
5,914,721 Lim
5,949,423 Olsen
5,977,979 Clough et al
6,037,948 Liepa
6,057,847 Jenkins
6,088,035 Sudarsky et al
6,094,200 Olsen et al
6,111,582 Jenkins
6,115,049 Winner et al
6,215,496 B1 Szeliski et al

Shade, Jonathan et al., "Layered Depth Images," COMPUTER GRAPHICS
Proceedings, Annual Conference Series, pp. 231-242 (1998)

XVIII. Application No. 09/723,336 filed November 28, 2000 entitled "Application Program Interface for a Graphics System" (att. dkt. no. 723-976):

9-330230	JAPAN
5,404,445	Matsumoto
5,432,900	Rhodes et al
5,438,663	Matsumoto et al
5,751,295	Becklund et al
5,861,893	Strugess, Jay J.
5,870,587	DANFORTH et al.
5,920,876	UNGAR et al.
5,936,641	Jain et al
5,995,121	Alcokrn et.al
6,052,133	Kang
6,057,863	Olarig
6,151,602	HEJLSBERG et al.
6,177,944	FOWLER et al.
6,275,235	Morgan, III, David L.

Efficient Command/Data Interface Protocol For Graphics, IBM TDB, vol. 36, issue 9A, September 1, 1993, pgs. 307-312

XIX. Application No. 09/722,663 filed November 28, 2000 (att. dkt. no. 723-963) entitled "Graphics System With Copy Out Conversions Between Embedded Frame Buffer And Main Memory":

4,357,624	GREENBERG
4,817,175	TENENBAUM et al.
5,062,057	BLACKEN et al.
5,204,944	WOLBERG et al.
5,315,692	HANSEN et al.
5,461,712	CHELSTOWSKI et al.
5,506,604	NALLY et al.
5,608,864	BINDLISH et al.
5,644,364	KURTZE et al.
5,691,746	SHYU
5,801,711	KOSS et al.

5,808,630	PANNELL
5,815,165	BLIXT
5,828,383	MAY et al.
5,877,741	CHEE et al.
5,909,225	SCHINNERER et al.
5,912,676	MALLADI et al.
5,936,683	LIN
6,020,931	BILBREY et al.
6,040,843	MONROE et al.
6,043,804	GREENE
6,067,098	DYE
6,097,435	STANGER et al.
6,097,437	HWANG
6,115,047	DEERING

XX. Application No.09/722,665 filed November 28, 2000 (atty. dkt. no. 723-970)
entitled "Method and Apparatus for Accessing Shared Resources":

5,682,522	HUANG et al.
5,706,482	MATSUSHIMA et al.
5,740,383	NALLY et al.
5,781,927	WU et al.
5,903,283	SELWAN et al.
5,959,640	RUDIN et al.
5,986,677	JONES et al.
6,008,820	Chauvin et al.
6,035,360	Doidge et al
6,057,862	MARGULIS
6,078,338	HORAN et al.
6,091,431	SAXENA et al.
6,104,417	NIELSEN et al.
6,105,094	LINDEMAN
6,108,743	DEBS et al.
6,118,462	MARGULIS

XXI. Application No. 09/722,390 filed November 28, 2000 (atty. dkt. no. 723-966) entitled "Low Cost Graphics System With Stitching Hardware Support For Skeletal Animation":

4,600,919	Stern
5,475,803	Stearns et al
5,579,456	Cosman, Michael A.
5,748,199	Palm
5,850,229	Edelsbrunner et al.
5,883,638	Rouet et al.
5,909,218	Naka et al.
5,912,675	Laperriere
5,933,150	Ngo et al.
6,011,562	Gagne et al.
6,054,999	Strandberg
6,057,859	Handelman et al.
6,072,496	Guenther et al.
6,088,042	Handelman et al.
6,329,997	We et al.

Slide Presentation, Sébastien Dominé, "nVIDIA Mesh Skinning, OpenGL"

Singh, Karan et al., "Skinning Characters using Surface-Oriented Free-Form Deformations," Toronto Canada

"Hardware Technology," from ATI.com web site, 8 pages (2000)

"Skeletal Animation and Skinning," from ATI.com web site, 2 pages (Summer 2000)

"Developer Relations, ATI Summer 2000 Developer Newsletter," from ATI.com web site, 5 pages (Summer 2000)

Press Releases, "ATI's RADEON family of products delivers the most comprehensive support for the advance graphics features of DirectX 8.0," Canada, from ATI.com web site, 2 pages (11/9/2000)

"ATI RADEON Skinning and Tweening," from ATI.com web site, 1 page (2000)

Hart, Evan et al., "Vertex Shading with Direct3D and OpenGL," Game Developers Conference 2001, from ATI.com web site (2001)

"Search Results for: skinning, from ATI.com web site, 5 pages (5/24/01)

Hart, Evan et al., "Graphics by rage," Game Developers Conference 2000, from ATI.com web site (2000)

XXII. Application No. 09/722,421 filed November 28, 2000 (att. dkt. no. 723-953)
entitled "Shadow Mapping In A Low Cost Graphics System":

4,625,289	Rockwood
5,043,922	Matsumoto
5,255,353	Itoh
5,377,313	Scheibl
5,402,532	Epstein et al.
5,739,819	Bar-Nahum
5,742,749	Foran et al.
5,870,097	Snyder et al.
5,870,098	Gardiner
5,966,134	Arias
6,018,350	Lee et al.
6,252,608	Snyder et al.

Debevec, Paul, et al., "Efficient View-Dependent Image-Based Rendering with Projective Texture-Mapping," University of California at Berkeley

Gibson, Simon, et al., "Interactive Rendering with Real-World Illumination," Rendering Techniques 2000; 11th Eurographics Workshop on Rendering, pp. 365-376 (June 2000)

Segal, Mark, et al., "Fast Shadows and Lighting Effects Using Texture Mapping," Computer Graphics, 26, 2, pp. 249-252 (July 1992)

White paper, Kilgard, Mark J., "Improving Shadows and Reflections via the Stencil Buffer" (11/03/1999)

"OpenGL Projected Textures," from web site: [HTTP:// reality.sgi.com](http://reality.sgi.com), 5 pages

"5.13.1 How to Project a Texture," from web site: www.sgi.com, 2 pages

Arkin, Alan, email, subject: "Texture distortion problem," from web site: [HTTP://reality.sgi.com](http://reality.sgi.com) (7/1997)

Moller, Tomas et al., "Real-Time Rendering," pp. 179-183 (AK Peters Ltd., 1999)

Williams, Lance, "Casting Curved Shadows on Curved Surfaces," Computer Graphics (SIGGRAPH '78 Proceedings), Volume 12, Number 3, pages 270-274 (August 1978)

Woo et al., "A Survey of Shadow Algorithms," IEEE Computer Graphics and Applications, Volume 10, Number 6, pages 13-32 (November 1990)

Heidrich et al., "Applications of Pixel Textures in Visualization and Realistic Image Synthesis," Proceedings 1999 Symposium On Interactive 3D Graphics, pages 127-134 (April 1999)

Hourcade et al, "Algorithms for Antialiased Cast Shadows", Computers and Graphics, vol. 9, no. 3, pp. 259-265 (1985).

Michael McCool, "Shadow Volume Reconstruction from Depth Maps", ACM Transactions on Graphics, Vol. 19, No. 1, Jan. 2000, pages 1-26

XXIII. Application No. 09/723,322 filed November 28, 2000 (atty. dkt. no. 723-959) entitled "Method and Apparatus for Buffering Graphics Data in a Graphics System":

4,491,836	Collmeyer et al.
4,653,012	Duffy et al.
4,695,943	Keeley et al.
4,710,876	Cline et al.
4,768,148	Keeley et al.
4,785,395	Keeley
4,790,025	Inoue et al.
4,812,988	Duthuit et al.
4,829,452	Kang et al.
4,833,601	Barlow et al.
4,965,751	Thayer et al.
4,975,977	Kurosu et al.
5,056,044	Frederickson et al.
5,086,495	Gray et al.
5,163,126	Einkauf et al.
5,179,638	Dawson et al.
5,448,689	Matsuo et al.
5,657,045	Katsura et al.
5,657,443	Krech, Jr.
5,659,673	Nonoshita
5,740,406	Rosenthal et al.
5,748,986	Butterfield et al.
5,751,930	Katsura et al.
5,754,191	Mills et al.
5,821,940	Morgan et al.
5,822,516	Krech, Jr.
5,838,334	Dye
5,886,701	Chauvin et al.
5,940,089	Dilliplane
5,995,120	Dye
6,088,701	Whaley et al.

White paper, Huddy, Richard, "The Efficient Use of Vertex Buffers," (11/01/2000)

White paper, Spitzer, John, et al., "Using GL_NV_array_range and GL_NV_Fence on GeForce Products and Beyond" (08/01/2000)

White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)

Hook, Brian, "An Incomplete Guide to Programming DirectDraw and Direct3D Immediate Mode (Release 0.46)," printed from web site: www.wksoftware.com, 42 pages

Thompson, Tom, "Must-See 3-D Engines," BYTE MAGAZINE, printed from web site www.byte.com, 10 pages (June 1996)

Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site msdn.microsoft.com, 8 pages (March 97)

"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site support.microsoft.com, 3 pages (last reviewed 12/15/2000)

INFO: Rendering a Triangle Using an Execute Buffer," printed from web site support.microsoft.com, 6 pages (last reviewed 10/20/2000)

U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method

Datasheet, SGS-Thomson Microelectronics, nVIDIA™, RIVA 128™ 128-Bit 3D Multimedia Accelerator (10/1997)

Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

Serial No.

723-974

J/726,220

Applicant

FOULADI et al.

Filing Date

Group

November 28, 2000

2671

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4.275.413	Jun-81	Sakamoto et al.			
	4.357.624	Nov-82	GREENBERG			
	4.463.380	Jul-84	HOOKS, Jr.			
	4.491.836	Jan-85	Collmeyer et al.			
	4.586.038	Apr-86	Sims et al.			
	4.600.919	Jul-86	Stern			
	4.615.013	Sep-86	YAN et al.			
	4.625.289	Nov-86	Rockwood			
	4.653.012	Mar-87	Duffy et al.			
	4.692.880	Sep-87	MERZ et al.			
	4.695.943	Sep-87	Keelev et al.			
	4.710.876	Dec-87	Cline et al.			
	4.768.148	Aug-88	Keelev et al.			
	4.785.395	Nov-88	Keelev			
	4.790.025	Dec-88	Inoue et al.			
	4.808.988	Feb-89	BURKE et al.			
	4.812.988	Mar-89	Duthuit et al.			
	4.817.175	Mar-89	TENENBAUM et al.			
	4.829.452	May-89	Kang et al.			
	4.833.601	May-89	Barlow et al.			
	4.855.934	Aug-89	Robinson			
	4.888.712	Dec-89	BARKANS et al.			
	4.897.806	Jan-90	COOK et al.			
	4.907.174	Mar-90	PRIEM			
	4.918.625	04/17/1	Yan			
	4.935.879	Jun-90	UFDA			
	4.965.751	Oct-90	Thaver et al.			
	4.974.176	Nov-90	BUCHNER et al.			
	4.974.177	Nov-90	NISHIGUCHI			
	4.975.977	Dec-90	Kurosu et al.			
	4.989.138	Jan-91	Radochonski			
	5.003.496	Mar-91	HUNT, Jr. et al.			
	5.016.183	May-91	Shvong			
	5.018.076	May-91	JOHARY et al.			
	5.043.922	Aug-91	Matsumoto			
	5.056.044	Oct-91	Frederickson et al.			
	5.062.057	Oct-91	BLACKEN et al.			
	5.086.495	Feb-92	Grav et al.			
	5.091.967	Feb-92	Ohsawa			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

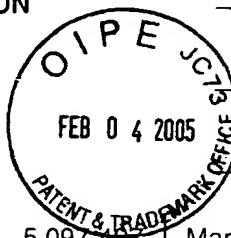
Atty. Docket No.

Serial No.

723-974

J/726,220

Applicant



FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	5,097,427	Mar-92	Lathrop et al.			
	5,144,291	Sep-92	Nishizawa			
	5,163,126	Nov-92	Einkauf et al.			
	5,179,638	Jan-93	Dawson et al.			
	5,204,944	Apr-93	WOLBERG et al.			
	5,224,208	Jun-93	MILLER, JR. et al.			
	5,239,624	Aug-93	COOK et al.			
	5,241,658	Aug-93	MASTERSON et al.			
	5,255,353	Oct-93	Itoh			
	5,268,995	Dec-93	Diefendorff et al.			
	5,268,996	Dec-93	STEINER et al.			
	5,278,948	Jan-94	Luker, Jr.			
	5,307,450	Apr-94	Grosssman			
	5,315,692	May-94	HANSEN et al.			
	5,345,541	Sep-94	Kelley et al.			
	5,353,424	Oct-94	Partovi et al.			
	5,357,579	Oct-94	BUCHNER et al.			
	5,361,386	Nov-94	Watkins et al.			
	5,363,475	Nov-94	BAKER et al.			
	5,377,313	Dec-94	Scheibl			
	5,394,516	Feb-95	WINSER			
	5,402,532	Mar-95	Einstein et al.			
	5,404,445	Apr-95	Matsumoto			
	5,412,796	May-95	OLIVE			
	5,415,549	May-95	LOGG			
	5,416,606	05/16/1	Katavama et al.			
	5,422,997	Jun-95	NAGASHIMA			
	5,432,895	Jul-95	MYERS			
	5,432,900	Jul-95	Rhodes et al.			
	5,438,663	Aug-95	Matsumoto et al.			
	5,448,689	Sep-95	Matsuo et al.			
	5,461,712	Oct-95	CHELSTOWSKI et al.			
	5,467,438	Nov-95	Nishio et al.			
	5,467,459	Nov-95	Alexander et al.			
	5,469,535	Nov-95	JARVIS et al.			
	5,473,736	Dec-95	Young			
	5,475,803	Dec-95	Stearns et al.			
	5,487,146	Jan-96	Guttan et al.			
	5,490,240	Feb-96	FORAN et al.			
	5,495,563	Feb-96	WINSER			
	5,495,563	Feb-96	Winsor, Paul A.			
	5,504,499	Apr-96	Horie et al.			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

Serial No.

723-974

9/726,220

Applicant

FOULADI et al.

Filing Date

Group

FEB 04 2005

November 28, 2000

2671

5.506.604	Mar-96	NALLY et al.			
5.535.374	Jul-96	OLIVE			
5.543.824	Aug-96	PRIEM et al.			
5.544.292	Aug-96	WINSER			
5.548.709	Aug-96	HANNAH et al.			
5.557.712	Sep-96	Guav			
5.559.954	Sep-96	SAKODA et al.			
5.561.746	Oct-96	MURATA et al.			
5.561.752	Oct-96	Jevans			
5.563.989	Oct-96	BILL-YARD			
5.566.285	Oct-96	Okada			
5.573.402	Nov-96	GRAY			
5.579.456	Nov-96	Cosman, Michael A.			
5.582.451	Dec-98	COX et al.			
5.586.234	Dec-96	SAKURABA et al.			
5.593.350	Jan-97	BOUTON et al.			
5.600.763	Feb-97	GREENE et al.			
5.606.650	02/25/1	Kellev et al.			
5.607.157	Mar-97	NAGASHIMA			
5.608.864	Mar-97	BINDLISH et al.			
5.616.031	Apr-97	LOGG			
5.621.867	Apr-97	MURATA et al.			
5.628.686	May-97	SVANCAREK et al.			
5.638.535	Jun-97	Rosenthal et al.			
5.644.364	Jul-97	KURTZE et al.			
5.649.082	Jul-97	Burns			
5.650.955	Jul-97	PUAR et al.			
5.651.104	Jul-97	COSMAN			
5.657.045	Aug-97	Katsura et al.			
5.657.443	Aug-97	Krech, Jr.			
5.657.478	Aug-97	RECKER et al.			
5.659.671	Aug-97	TANNENBAUM et al.			
5.659.673	Aug-97	Nonoshita			
5.664.162	Sep-97	DYE			
5.666.439	Sep-97	Ishida et al.			
5.678.037	Oct-97	Osugi et al.			
5.682.522	Oct-97	HUANG et al.			
5.684.941	Nov-97	Dye			
5.687.304	Nov-97	Kiss, Kenneth W.			
5.691.746	Nov-97	SHYU			
5.694.143	Dec-97	Fielder et al.			
5.696.892	Dec-97	REDMANN et al. (w/Abstract)			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

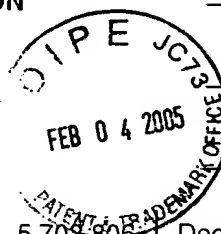
Atty. Docket No.

Serial No.

723-974

J9/726,220

Applicant



FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	5.703.806	Dec-97	PUAR et al.			
	5.706.481	Jan-98	HANNAH et al.			
	5.706.482	Jan-98	MATSUSHIMA et al.			
	5.714.981	Feb-98	SCOTT-JACKSON et al.			
	5.724.561	Mar-98	TAROLLI et al.			
	5.726.689	Mar-98	NEGISHI et al.			
	5.726.947	Mar-98	Yamazaki et al.			
	5.734.386	Mar-98	COSMAN			
	5.739.819	Apr-98	Bar-Nahum			
	5.740.343	Apr-98	Tarolli et al.			
	5.740.383	Apr-98	NALY et al.			
	5.740.406	Apr-98	Rosenthal et al.			
	5.742.749	Apr-98	Foran et al.			
	5.742.788	Apr-98	PRIEM et al.			
	5.745.118	Apr-98	ALCORN et al.			
	5.745.125	Apr-98	Deering et al.			
	5.748.199	May-98	Palm			
	5.748.986	May-98	Butterfield et al.			
	5.751.291	May-98	Olsen et al.			
	5.751.292	May-98	EMMOT			
	5.751.295	May-98	Becklund et al.			
	5.751.930	May-98	Katsura et al.			
	5.754.191	May-98	Mills et al.			
	5.757.382	May-98	Lee			
	5.760.783	Jun-98	MIGDAL et al.			
	5.764.228	Jun-98	BALDWIN			
	5.764.237	Jun-98	KANEKO			
	5.767.858	06/16/1	Kawase et al.			
	5.768.629	Jun-98	Wise et al.			
	5.777.623	Jul-98	SMALL			
	5.781.927	Jul-98	WU et al.			
	5.791.994	Aug-98	HIRANO et al.			
	5.801.711	Sep-98	KOSS et al.			
	5.801.720	Sep-98	Norrod et al.			
	5.805.175	Sep-98	Priem			
	5.808.619	Sep-98	CHOI et al.			
	5.808.630	Sep-98	PANNELL			
	5.809.219	Sep-98	PEARCE et al.			
	5.815.165	Sep-98	BLIXT			
	5.818.456	Oct-98	COSMAN et al.			
	5.819.017	Oct-98	Akelev et al.			
	5.821.940	Oct-98	Morgan et al.			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

723-974

Applicant

FOULADI et al.

Filing Date

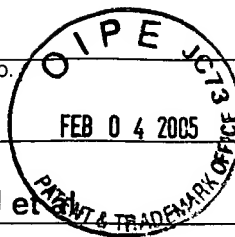
November 28, 2000

Serial No.

J/726,220

Group

2671



	5.821.940	Oct-98	Morgan et al			
	5.822.516	Oct-98	Krech, Jr.			
	5.828.382	Oct-98	WILDE			
	5.828.383	Oct-98	MAY et al.			
	5.828.907	Oct-98	Wise et al.			
	5.831.624	Nov-98	TAROLLI et al.			
	5.831.625	Nov-98	RICH et al. (w/Abstract)			
	5.831.640	Nov-98	WANG et al.			
	5.835.096	Nov-98	BALDWIN			
	5.835.792	Nov-98	Wise et al.			
	5.838.334	Nov-98	Dye			
	5.844.576	Dec-98	WILDE et al.			
	5.850.229	Dec-98	Edelsbrunner et al.			
	5.856.829	Jan-99	GRAY, III et al.			
	5.859.645	Jan-99	LATHAM			
	5.861.888	Jan-99	DEMPSEY			
	5.861.893	Jan-99	Strugess, Jay J.			
	5.867.166	02-199	Mvhrvold et al.			
	5.870.097	Feb-99	Snyder et al.			
	5.870.098	Feb-99	Gardiner			
	5.870.102	Feb-99	TAROLLI et al.			
	5.870.587	Feb-99	DANFORTH et al.			
	5.872.902	Feb-99	Kuchkuda et al.			
	5.877.741	Mar-99	CHEE et al.			
	5.877.770	Mar-99	HANAOKA			
	5.877.771	Mar-99	DREBIN et al.			
	5.880.736	Mar-99	PEERCY et al.			
	5.880.737	03/09/1	Griffen et al.			
	5.883.638	Mar-99	Rouet et al.			
	5.886.701	Mar-99	Chauvin et al.			
	5.886.705	03/23/1	Lentz			
	5.887.155	Mar-99	Laidio			
	5.890.190	Mar-99	Rutman			
	5.892.517	Apr-99	RICH (w/Abstract)			
	5.892.974	Apr-99	KOIZUMI et al.			
	5.894.300	04/13/1	Takizawa			
	5.900.881	May-99	IKEDO			
	5.903.283	May-99	SEI WAN et al.			
	5.909.218	Jun-99	Naka et al.			
	5.909.225	Jun-99	SCHINNERER et al.			
	5.912.675	Jun-99	Laperriere			
	5.912.676	Jun-99	MALLADI et al.			

*Examiner

Date Considered

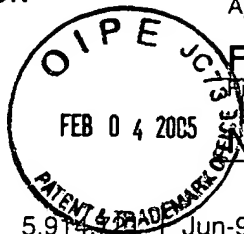
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

723-974

J/726,220

Applicant



FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	5.914.725	Jun-99	Lim			
	5.914.725	Jun-99	Mcinnnis et al.			
	5.914.729	Jun-99	LIPPINCOTT			
	5.920.876	Jul-99	UNGAR et al.			
	5.923.332	Jul-99	IZAWA			
	5.923.334	Jul-99	LUKEN			
	5.926.182	Jul-99	MENON et al.			
	5.926.647	Jul-99	ADAMS et al.			
	5.933.150	Aug-99	Ngo et al.			
	5.933.154	Aug-99	HOWARD et al.			
	5.933.529	Aug-99	Kim			
	5.936.641	Aug-99	Jain et al.			
	5.936.683	Aug-99	LIN			
	5.940.089	Aug-99	Dilliplane			
	5.940.538	Aug-99	Spiegel et al.			
	5.943.058	Aug-99	Nagy			
	5.943.060	Aug-99	COSMAN et al.			
	5.945.997	Aug-99	ZHAO et al.			
	5.949.421	Sep-99	Ooletree et al.			
	5.949.423	Sep-99	Olsen			
	5.949.428	Sep-99	Toelle et al.			
	5.949.428	Sep-99	TOELLE et al.			
	5.956.042	Sep-99	Tucker et al.			
	5.956.043	Sep-99	JENSEN			
	5.958.020	Sep-99	EVOY et al.			
	5.959.640	Sep-99	RUDIN et al.			
	5.963.220	Oct-99	LEE et al.			
	5.966.134	Oct-99	Arias			
	5.977.979	Nov-99	Clough et al.			
	5.977.984	Nov-99	OMORI			
	5.982.376	Nov-99	ABE et al.			
	5.982.390	Nov-99	Stoneking et al.			
	5.986.659	Nov-99	GALLERY et al.			
	5.986.663	11/16/1	Wilde			
	5.986.677	Nov-99	JONES et al.			
	5.987.567	Nov-99	RIVARD et al.			
	5.990.903	Nov-99	DONOVAN			
	5.995.120	Nov-99	Dve			
	5.995.121	Nov-99	Alcokrn et al.			
	5.999.189	Dec-99	Kaiiva et al.			
	5.999.198	Dec-99	HORAN et al.			
	6.002.407	Dec-99	FADDEN			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

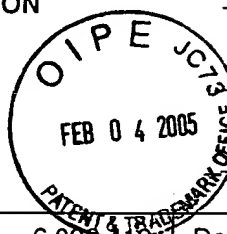
Atty. Docket No.

Serial No.

723-974

J/726,220

Applicant



FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	6.002.410	Dec-99	BATTLE			
	6.005.582	Dec-99	GABRIEL et al.			
	6.005.583	12/21/1	Morrison			
	6.005.584	12/21/1	Kitamura et al.			
	6.007.428	Dec-99	NISHIUMI et al.			
	6.008.820	Dec-99	Chauvin et al.			
	6.011.562	Jan-00	Gaone et al.			
	6.011.565	Jan-00	KUO et al.			
	6.014.144	Jan-00	NELSON et al.			
	6.016.150	01/18/2	Lenovel et al.			
	6.016.151	Jan-00	Lin			
	6.018.350	Jan-00	Lee et al.			
	6.020.931	Feb-00	BILBREY et al.			
	6.021.417	Feb-00	Massarksv			
	6.022.274	Feb-00	TAKEDA et al.			
	6.023.261	Feb-00	Ugaiin			
	6.026.182	Feb-00	Lee et al.			
	6.028.608	Feb-00	JENKINS			
	6.031.542	Feb-00	WITTIG			
	6.035.360	Mar-00	Doidoe et al.			
	6.037.948	Mar-00	Liepa			
	6.038.031	Mar-00	MURPHY			
	6.038.348	Mar-00	Carlev			
	6.040.843	Mar-00	MONROE et al.			
	6.040.844	Mar-00	YAMAGUCHI et al.			
	6.041.010	Mar-00	PUAR et al.			
	6.043.804	Mar-00	GREENE			
	6.043.821	Mar-00	Sprague et al.			
	6.046.746	Apr-00	DEERING			
	6.046.747	Apr-00	SAUNDERS et al.			
	6.046.752	Apr-00	Kirkland et al.			
	6.049.337	Apr-00	VAN OVERVELD			
	6.049.338	Apr-00	ANDERSON et al.			
	6.052.125	Apr-00	Gardiner et al.			
	6.052.126	Apr-00	SAKURABA et al.			
	6.052.127	Apr-00	VASWANI et al.			
	6.052.129	Apr-00	FOWLER et al.			
	6.052.133	Apr-00	Kang			
	6.054.993	04/25/2	Devic et al.			
	6.054.999	Apr-00	Strandberg			
	6.057.847	May-00	Jenkins			
	6.057.849	May-00	HAUBNER et al.			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

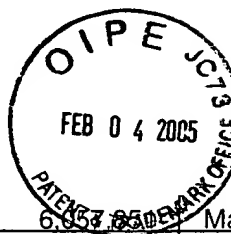
Atty. Docket No.

Serial No.

723-974

9/726,220

Applicant



FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	6.057.859	May-00	LUKEN et al.			
	6.057.859	May-00	Handelman et al.			
	6.057.861	May-00	LEE et al.			
	6.057.862	May-00	MARGULIS			
	6.057.863	May-00	Olario			
	6.061.462	May-00	Tostevin et al.			
	6.064.392	May-00	ROHNER			
	6.067.098	May-00	DYE			
	6.070.204	May-00	Poisner, David			
	6.072.496	Jun-00	Guenther et al.			
	6.075.543	Jun-00	AKLEY			
	6.078.311	Jun-00	Pelkey, Michael H.			
	6.078.333	Jun-00	WITTIG et al.			
	6.078.334	Jun-00	HANAOKA et al.			
	6.078.338	Jun-00	HORAN et al.			
	6.081.274	Jun-00	SHIRAISHI			
	6.088.035	Jul-00	Sudarsky et al.			
	6.088.042	Jul-00	Handelman et al.			
	6.088.487	Jul-00	Kurashige			
	6.088.701	Jul-00	Whaley et al.			
	6.091.431	Jul-00	SAXENA et al.			
	6.094.200	Jul-00	Olsen et al.			
	6.097.435	Aug-00	STANGER et al.			
	6.097.437	Aug-00	HWANG			
	6.104.415	Aug-00	GOSSETT			
	6.104.417	Aug-00	NIELSEN et al.			
	6.105.094	Aug-00	LINDEMAN			
	6.108.743	Aug-00	DEBS et al.			
	6.111.582	Aug-00	Jenkins			
	6.111.584	Aug-00	Murphy, Nicholas J.N.			
	6.115.047	Sep-00	DEERING			
	6.115.049	Sep-00	Winner et al.			
	6.118.462	Sep-00	MARGULIS			
	6.144.365	Nov-00	Young et al.			
	6.144.387	Nov-00	LIU et al.			
	6.151.602	Nov-00	HEJLSBERG et al.			
	6.155.926	Dec-00	MIYAMOTO et al.			
	6.157.387	Dec-00	KOTANI			
	6.166.748	Dec-00	Van Hook et al.			
	6.172.678 B1	Jan-01	Shiraishi			
	6.177.944	Jan-01	FOWLER et al.			
	6.191.794	Feb-01	PRIEM et al.			

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE CITATION

Atty. Docket No.

Serial No.

723-974

726,220

Applicant

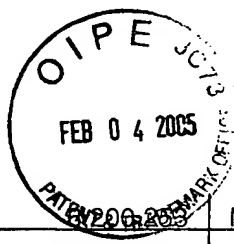
FOULADI et al.

Filing Date

Group

November 28, 2000

2671

[illegible]

FOREIGN PATENT DOCUMENTS

							TRANSLATION	
DOCUMENT			DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
		0 637 813 A2	Feb-95	EUROPEAN				
		9-330230	Dec-97	JAPAN				
		WO/93/04429	Mar-93	PCT				

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

Serial No.

723-974

J9/726,220

Applicant

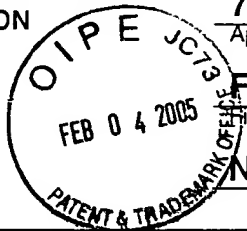
FOULADI et al.

Filing Date

Group

November 28, 2000

2671

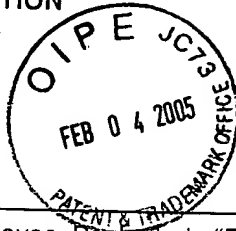


OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

	GDC 2000: Advanced OpenGL Game Development, "A Practical and Robust Bump-mapping Technique for Today's GPUs," by Mark Kilgard, July 5, 2000, www.nvidia.com
	Technical Presentations: "Texture Space Bump Mapping," Sim Dietrich, November 10, 2000, www.nvidia.com
	Whitepapers: "Texture Addressing," Sim Dietrich, January 6, 2000, www.nvidia.com
	White paper, Huddy, Richard, "The Efficient Use of Vertex Buffers," (11/01/2000)
	White paper, Spitzer, John, et al., "Using GL_NV_array_range and GL_NV_Fence on GeForce Products and Beyond" (08/01/2000)
	White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)
	Hook, Brian, "An Incomplete Guide to Programming DirectDraw and Direct3D Immediate Mode (Release 0.46)," printed from web site: www.wksoftware.com, 42 pages
	Thompson, Tom, "Must-See 3-D Engines," BYTE MAGAZINE, printed from web site www.byte.com, 10 pages (June 1996)
	Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site msdn.microsoft.com, 8 pages (March 97)
	"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site support.microsoft.com, 3 pages (last reviewed 12/15/2000)
	INFO: Rendering a Triangle Using an Execute Buffer," printed from web site support.microsoft.com, 6 pages (last reviewed 10/20/2000)
	U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method [issued as U.S. Patent No. 6,501,479 B1 on 12/31/02]
	Datasheet, SGS-Thomson Microelectronics, nVIDIA™, RIVA 128™ 128-Bit 3D Multimedia Accelerator (10/1997)
	Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages
	ZDNet Reviews, from PC Magazine, "Other Enhancements," January 15, 1999, wysiwyg://16/http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html
	ZDNet Reviews, from PC Magazine, "Screen Shot of Alpha-channel Transparency," January 15, 1999, wysiwyg://16/http://www4.zdnet.com...ies/reviews/0,4161,2188286,00.html
	Alpha (transparency) Effects, Future Technology Research Index, http://www.futuretech.vuurwerk.nl/alpha.html
	Blythe, David, 5.6 Transparency Mapping and Trimming with Alpha, http://toolbox.sgi.com/TasteOfDT/d...penGL/advanced98/notes/node41.html, June 11, 1998
	10.2 Alpha Blending, http://www.sgi.com/software/opengl/advanced98/notes/node146.html
	10.3 Sorting, http://www.sgi.com/software/opengl/advanced98/notes/node147.html
	10.4 Using the Alpha Function, http://www.sgi.com/software/opengl/advanced98/notes/node148.html
	Winner, Stephanie, et al., "Hardware Accelerated Rendering Of Antialiasing Using A Modified A-buffer Algorithm," Computer Graphics Proceedings, Annual Conference Series, 1997, pp 307-316

*Examiner		Date Considered	
-----------	--	-----------------	--

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

Serial No.

723-974

09/726,220

Applicant

FOULADI et al.

Filing Date

Group

November 28, 2000

2671

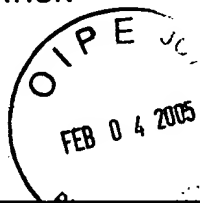
	Debevec, Paul, et al., "Efficient View-Dependent Image-Based Rendering with Projective Texture-Mapping," University of California at Berkeley
	Gibson, Simon, et al., "Interactive Rendering with Real-World Illumination," Rendering Techniques 2000; 11th Eurographics Workshop on Rendering, pp. 365-376 (June 2000)
	Segal, Mark, et al., "Fast Shadows and Lighting Effects Using Texture Mapping," Computer Graphics, 26, 2, pp. 249-252 (July 1992)
	White paper, Kilgard, Mark J., "Improving Shadows and Reflections via the Stencil Buffer" (11/03/1999)
	"OpenGL Projected Textures," from web site: HTTP://reality.sgi.com, 5 pages
	"5.13.1 How to Project a Texture," from web site: www.sgi.com, 2 pages
	Arkin, Alan, email, subject: "Texture distortion problem," from web site: HTTP://reality.sgi.com (7/1997)
	Moller, Tomas et al., "Real-Time Rendering," pp. 179-183 (AK Peters Ltd., 1999)
	Williams, Lance, "Casting Curved Shadows on Curved Surfaces," Computer Graphics (SIGGRAPH '78 Proceedings), Volume 12, Number 3, pages 270-274 (August 1978)
	Woo et al., "A Survey of Shadow Algorithms," IEEE Computer Graphics and Applications, Volume 10, Number 6, pages 13-32 (November 1990)
	Heidrich et al., "Applications of Pixel Textures in Visualization and Realistic Image Synthesis," Proceedings 1999 Symposium On Interactive 3D Graphics, pages 127-134 (April 1999)
	Hourcade et al., "Algorithms for Antialiased Cast Shadows," Computers and Graphics, vol. 9, no. 3, pp. 260-265 (1985).
	Michael McCool, "Shadow Volume Reconstruction from Depth Maps", ACM Transactions on Graphics, Vol. 19, No. 1, Jan. 2000, pages 1-26
	RenderMan Artist Tools, PhotoRealistic RenderMan 3.8 User's Manual, Pixar (8/1998)
	RenderMan Interface Version 3.2 (7/2000)
	White paper, Dietrich, Sim, "Cartoon Rendering and Advanced Texture Features of the GeForce 256 Texture Matrix, Projective Textures, Cube Maps, Texture Coordinate Generation and DOTPRODUCT3 Texture Blending" (12/16/1999)
	Peter J. Kovach, INSIDE DIRECT 3D, "Alpha Testing," pp. 289-291 (1999)
	Web site information, CartoonReyes, REM Infografica, http://www.digimotion.co.uk/cartoonreyes.htm
	Raskar, Ramesh et al., "Image Precision Silhouette Edges," Symposium on Interactive 3D Graphics 1999, Atlanta, 7 pages (April 26-29, 1999)
	Schlechtweg, Stefan et al., "Rendering Line-Drawings with Limited Resources, Proceedings of GRAPHICON '96, 6th International Conference and Exhibition on Computer Graphics and Visualization in Russia, (St. Petersburg, July 1-5, 1996) vol. 2, pp 131-137
	Haerberli, Paul et al., "Texture Mapping as a Fundamental Drawing Primitive," Proceedings of the Fourth Eurographics Workshop on Rendering, 11 pages, Paris, France (June 1993)
	Schlechtweg, Stefan et al., "Emphasising in Line-drawings," Norsk samarbeid innen grafisk databehandling: NORSIGD Info, medlemsblad for NORSIGD, Nr 1/95, pp. 9-10
	Markosian, Lee et al., "Real-Time Nonphotorealistic Rendering," Brown University site of the NSF Science and Technology Center for Computer Graphics and Scientific Visualization, Providence, RI, 5 pages (undated)

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION



Atty. Docket No.

Serial No.

723-974**9/726,220**

Applicant

FOULADI et al.

Filing Date

Group

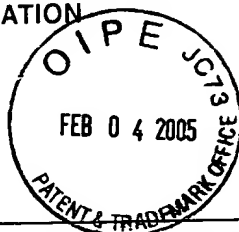
November 28, 2000**2671**

	Feth, Bill, "Photorealistic Rendering," wif3@cornell.edu, CS490 – Bruce Land, 5 pages (Spring 1998)
	Elber, Gershon, "Line Art Illustrations of Parametric and Implicit Forms," IEEE Transactions on Visualization and Computer Graphics, Vol. 4, No. 1, January-March 1998
	Zelevnik, Robert et al. "SKETCH: An Interface for Sketching 3D Scenes," Computer Graphics Proceedings, Annual Conference Series 1996, pp. 163-170
	Computer Graphics World, December 1997
	Reynolds, Craig, "Stylized Depiction in Computer Graphics, Non-Photorealistic, Painterly and Toon Rendering," an annotated survey of online resources, 13 pages, last update May 30, 2000, http://www.red.com/cwr/painterly.html
	Render Man Artist Tools, "Using Arbitrary Output Variables in Photorealistic Renderman (With Applications), PhotoRealistic Renderman Application Note #24, 8 pages, June 1998, http://www.pixar.com/products/renderman/toolkit/Toolkit/AppNotes/appnote.24.html
	Decaudin, Philippe, "Cartoon-Looking Rendering of 3D Scenes," Syntim Project Inria, 6 pages, http://www-syntim.inria.fr/syntim/recherche/decaudin/cartoon-eng.html
	Hachigian, Jennifer, "Super Cel Shader 1.00 Tips and Tricks," 2 pages, wysiwyg://thePage.13/http://members.xoom.com/_XMCM.jarvia/3D/celshade.html
	Digimation Inc., "The Incredible Comicshop," info sheet, 2 pages, http://www.digimation.com/asp/product/asp?product_id=33
	Softimage/3D Full Support, "Toon Assistant," 1998 Avid Technology, Inc., 1 page, http://www.softimage.com/3dsupport/techn...uments/3.8/features3.8/rel_notes.56.html
	Cambridge Animo – Scene III, info sheet, Cambridge Animation Systems, 2 pages, http://www.cam-ani.co.uk/casweb/products/software/Scenelll.htm
	Mulligan, Vikram, "Toon," info sheet, 2 pages, http://digitalcarversguild.com/products/toon/toon.html
	Toony Shaders, "Dang I'm tired of photorealism," 4 pages, http://www.visi.com/~mcdonald/toony.html
	"Cartoon Shading, Using Shading Mapping," 1 page, http://www.goat.com/alias/shaders.html#toonshad
	web site information, CartoonReyes, http://www.zentertainment.com/zentropy/review/cartoonreyes.html
	VIDI Presenter 3D Repository, "Shaders," 2 pages, http://www.webnation.com/vidirep/panels/renderman/shaders/toon.phtml
	The RenderMan Interface Version 3.1," (September 1989)
	"Renderman Artist Tools, PhotoRealistic RenderMan Tutorial," Pixar (01/1996)
	Web site materials, "Renderman Artist Tools, PhotoRealistic RenderMan 3.8 User's Manual," Pixar, NVIDIA.com, technical presentation, "AGDC Per-Pixel Shading" (11/15/2000)
	NVIDIA.com, technical presentation, "Introduction to DX8 Pixel Shaders (11/10/2000)
	NVIDIA.com, technical presentation, "Advanced Pixel Shader Details" (11/10/2000)
	"Developer's Lair, Multitexturing with the ATI Rage Pro," (7 pages) from ati.com web site (2000)
	Slide Presentation, Sébastien Dominé, "nVIDIA Mesh Skinning, OpenGL"
	Singh, Karan et al., "Skinning Characters using Surface-Oriented Free-Form Deformations," Toronto Canada "Hardware Technology," from ATI.com web site, 8 pages (2000)
	"Skeletal Animation and Skinning," from ATI.com web site, 2 pages (Summer 2000)

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

INFORMATION DISCLOSURE
CITATION

Atty. Docket No.

Serial No.

723-974

09/726,220

Applicant

FOULADI et al.

Filing Date

Group

November 28, 2000

2671

	"Developer Relations, ATI Summer 2000 Developer Newsletter," from ATI.com web site, 5 pages (Summer 2000)
	Press Releases, "ATI's RADEON family of products delivers the most comprehensive support for the advance graphics features of DirectX 8.0," Canada, from ATI.com web site, 2 pages (11/9/2000)
	"ATI RADEON Skinning and Tweening," from ATI.com web site, 1 page (2000)
	Hart, Evan et al., "Vertex Shading with Direct3D and OpenGL," Game Developers Conference 2001, from ATI.com web site (2001)
	"Search Results for: skinning, from ATI.com web site, 5 pages (5/24/01)
	Hart, Evan et al., "Graphics by rage," Game Developers Conference 2000, from ATI.com web site (2000)
	Efficient Command/Data Interface Protocol For Graphics, IBM TDB, vol. 36, issue 9A, September 1, 1993, pgs. 307-312
	Shade, Jonathan et al., "Layered Depth Images," COMPUTER GRAPHICS Proceedings, Annual Conference Series, pp. 231-242 (1998)
	Videum Conference Pro (PCI) Specification, product of Winnov (Winnov), published 7/21/1999
	Hoppe, Hugues, "Optimization of Mesh Locality for Transparent Vertex Caching," PROCEEDINGS OF SIGGRAPH, pages 269-276 (August 8-13, 1999)
	Whitepaper: Implementing Fog in Direct3D, January 3, 2000, www.nvidia.com
	Akeley, Kurt, "Reality Engine Graphics", 1993, Silicon Graphics Computer Systems, pp. 109-116.

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-14)

740547